IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

A. Dean Sherry et al

Serial No.:

N/A

Filed:

Herewith

For:

SELECTION OF COORDINATION GEOMETRY TO ADJUST WATER

EXCHANGE RATES OF PARAMAGNETIC METAL ION-BASED

MACROCYCLIC CONTRAST AGENTS

Group No.:

N/A

Examiner:

N/A

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Thereby certify that this correspondence, including the attachments listed, is being deposited with the United States Postal, Service, Express Mail Post Office to Addressee, Receipt No Patents, Alexandria, VA 22313, on the date shown below 7-14-203 Date of Mailing Typed or printed harne of person anathing Signature of person analing Signature of person analing

INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. § 1.56, Applicant submits this statement. This submittal is made in accordance with 37 C.F.R. §§ 1.97 and 1.98 and § 609 of the Manual of Patent Examining Procedure. The patents, publications and other information herein are listed below and on the attached Form PTO-1449. Copies of the listed references are submitted herewith.

U.S. Patent No.	Inventor	<u>Date</u>	
5,428,155	Sherry et al	June 27, 1995	

References

Zoltan Kovacs and A. Dean Sherry, "pH-Controlled Selective Protection of Polyaza Macrocycles", Synthesis, July 1997, Pg. 761-763.

Shanrong Zhang, Patrick Winter, Kuangcong Wu and A. Dean Sherry, "A Novel Europium (III)-Based MRI Contrast Agent", 2001 J. Am. Chem. Soc., Pg. 1517-1518.

Shanrong Zhang, Kuangcong Wu, Michael C. Biewer and A. Dean Sherry, "¹H and ¹⁷O NMR Detection of a Lanthanide-Bound Water Molecule at Ambient Temperatures in Pure Water as Solvent", 2001 Inorganic Chemistry, Vol. 40, No. 17, Pg. 4284-4290.

Min K. Moi and Claude F. Meares, "The Peptide Way to Macrocyclic Bifunctional Chelating Agents: Synthesis of 2-(p-Nitrobenzyl)-1, 4, 7, 10-tetraazacyclododecane-N,N',N", N"'-tetraacetic Acid and Study of its Yttrium(III) Complex", 1988 J. Am. Chem. Soc., 110, Pg. 6266-6267.

Mark Woods, Silvio Aime, Mauro Botta, Judith A. K. Howard, Janet M. Moloney, Michel Navet, David Parker, Marc Port, and Olivier Rousseaux, "Correlation of Water Exchange Rate with Isomeric Composition in Diastereoisomeric Gadolinium Complexes of Tetra (carboxyethyl) dota and Related Macrocyclic Ligands", 2000 J. Am. Chem. Soc., Vol. 122, No. 40, Pg. 9781-9792.

Rachel S. Dickens, Judith A. K. Howard, Christine L. Maupin, Janet M. Moloney, David Parker, Robert D. Peacock, James P. Riehl, and Giuliano Siligardi, "Ground and Excited State Chiroptical Properties of Enantiopure Macrocyclic Tetranaphthyl Lanthanide Complexes: Controlled Modulation of the Frequency and Polarisation of Emitted Light", 1998 New J. Chem., Pg. 891-899.

Ramachandran S. Ranganathan, Natarajan Raju, Helen Fan, Xun Zhang, Michael F. Tweedle, Jean F. Desreux, and Vincent Jacques, "Polymethylated DOTA Ligands. 2. Synthesis of Rigidified Lanthanide Chelates and Studies on the Effect of Alkyl Substitution on Conformational Mobility and Relaxivity", Inorganic Chemistry, Vol. 41, No. 25, 2002 American Chemical Society, Pg. 6856-6866.

Vinciane Comblin, Dominique Gilsoul, Martine Hermann, Valerie Humblet, Vincent Jacques, Mohammed Mesbahi, Christophe Sauvage, and Jean F. Desreux," Designing New MRI Contrast Agents: A Coordination Chemistry Challenge", Coordination Chemistry Reviews 185-186, (1999), Pg. 451-470.

Applicant hereby expressly reserves the right to swear behind the effective dates of any of the above Patents and to question the relevance and materiality of the Patents and Publications listed herein, in whole, in part, or in combination, subsequent to filing this Information Disclosure Statement. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 08-2395.

Respectfully submitted,

HITT GAINES, P.C.

Charles W. Gaines

Registration No. 36,804

Date:

Hitt Gaines, P.C.

P.O. Box 832570

Richardson, Texas 75083

(972) 480-8800

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO	Co	Complete if Known			
	Application Number	N/A			
INFORMATION DISCLOSURE	Filing Date	Herewith			
STATEMENT BY APPLICANT	First Named Inventor	A. Dean Sherry, et al			
OTAL EMENT BY ALL ELOANT	Art Unit	N/A			
(Use as many sheets as necessary)	Examiner Name	N/A			
Sheet 1 of 2	Attorney Docket Number	UTAD-0004			

U. S. PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (if known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
		^{US-} 5,428,155	06/27/1995	Sherry et al				
		US-						
Fire to the best of the say control control		US-						
		US-		**************************************				
* * **		US-						
		US-						
		US-						
NY VIII NAMENANA PARAMETRA NY INDRINANA NAMENANA NAMENANA NAMENANA NAMENANA NAMENANA NAMENANA NAMENANA NAMENAN		US-						
		US-						
P MPAGETTAL AT MINISTER, we plot you be will a daily a daily at the last		US-						
		US-						
***************************************		US-						
de PP Audien mit mit office agé or paper game ann mar-	-	US-						
The second secon		US-						
The direction to the figure and a specific reference		US-						
		US-			·			
		US-						
***************************************		US-			· · · · · · · · · · · · · · · · · · ·			

FOREIGN PATENT DOCUMENTS									
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶			
		,							

Examiner			Date	
Signature	* *	i	Considered	
1				

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

Traistation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b(05-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute fo	or form 1449B/PTO			Complete if Known			
				Application Number	N/A		
INFO	RMATION DI	SCLC	SURE	Filing Date	Herewith		
STAT	STATEMENT BY APPLICANT			First Named Inventor	A. Dean Sherry, et al		
				Art Unit	N/A		
(Use as many sheets as necessary)				Examiner Name	N/A		
Sheet	2	of	2	Attorney Docket Number	UTAD-0004		

	NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²				
		ZOLTAN KOVACS and A. DEAN SHERRY, pH-Controlled Selective Protection of Polyaza Macrocycles, Synthesis, July 1997, pg. 761-763.					
		SHANRONG ZHANG, PATRICK WINTER, KUANGCONG WU and A. DEAN SHERRY, A Novel Europium (III)-Based MRI Contrast Agent, 2001 J. Am. Chem. Soc., Pgs. 1517-1518.					
		SHANRONG ZHANG, KUANGCONG WU, MICHAEL C. BIEWER and A. DEAN SHERRY, 1H and 17O NMR Detection of a Lanthanide-Bound Water Molecule at Ambient Temperatures in Pure Water as Solvent, Inorganic Chemistry, Vol. 40, No. 17, 2001, Pg. 4284-4290.					
		MIN K. MOI and CLAUDE F. MEARES, The Peptide Way to Macrocyclic Bifunctional Chelating Agents: Synthesis of 2-(p-Nitrobenzyl)-1, 4, 7, 10-tetraazacyclododecane-N,N',N", N"'-tetraacetic Acid and Studyof its Yttrium(III) Complex, J. Am. Chem. Soc., 110, 1988, Pg. 6266-6267.					
		MARK WOODS, SILVIO AIME, MAURO BOTTA, JUDITH A. K. HOWARD, JANET M. MOLONEY, MICHEL NAVET, DAVID PARKER, MARC PORT, and OLIVIER ROUSSEAUX, Correlation of Water Exhange Rate with Isomeric Composition in Diastereoisomeric Gadolinium Complexes of Tetra (carboxyethyl) dota and Related Macrocyclic Ligands, J. Am. Chem. Soc., Vol. 122, No. 40, 2000, Pg. 9781-9792.					
		RACHEL S. DICKENS, JUDITH A. K. HOWARD, CHRISTINE L. MAUPIN, JANET M. MOLONEY, DAVID PARKER, ROBERT D. PEACOCK, JAMES P. RIEHL, and GIULIANO SILIGARDI, Ground and Excited State Chiroptical Properties of Enantiopure Macrocyclic Tetranaphthyl Lanthanide Complexes: Controlled Modulation of the Frequency and Polarisation of Emitted Light, New J. Chem., 1998, Pg. 891-899.					
		RAMACHANDRAN S. RANGANATHAN, NATARAJAN RAJU, HELEN FAN, XUN ZHANG, MICHAEL F. TWEEDLE, JEAN F. DESREUX, and VINCENT JACQUES, Polymethylated DOTA Ligands. 2. Synthesis of Rigidified Lanthanide Chelates and Studies on the Effect of Alkyl Substitution on Conformational Mobility and Relaxivity, Inorganic Chemistry, Vol. 41, No. 25, 2002, Pg. 6856-6866.					
		VINCIANE COMBLIN, DOMINIQUE GILSOUL, MARTINE HERMANN, VALERIE HUMBLET, VINCENT JACQUES, MOHAMMED MESBAHI, CHRISTOPHE SAUVAGE, and JEAN F. DESREUX, Designing New MRI Contrast Agents: A Coordination Chemistry Challenge, Coordination Chemistry Reviews 185-186, 1999, Pg. 451-470.					
<u></u>							

Examiner			Date		
Signature]		Considered	ļ	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.